News

- This meeting: intended as a working group meeting for US institutes working on items related to pixel modules
- Meetings are announced via usatlas-hllhc-pixel@cern.ch
  - Please encourage your group members to sign up if they haven't already
- We hope to hear about your activities soon!

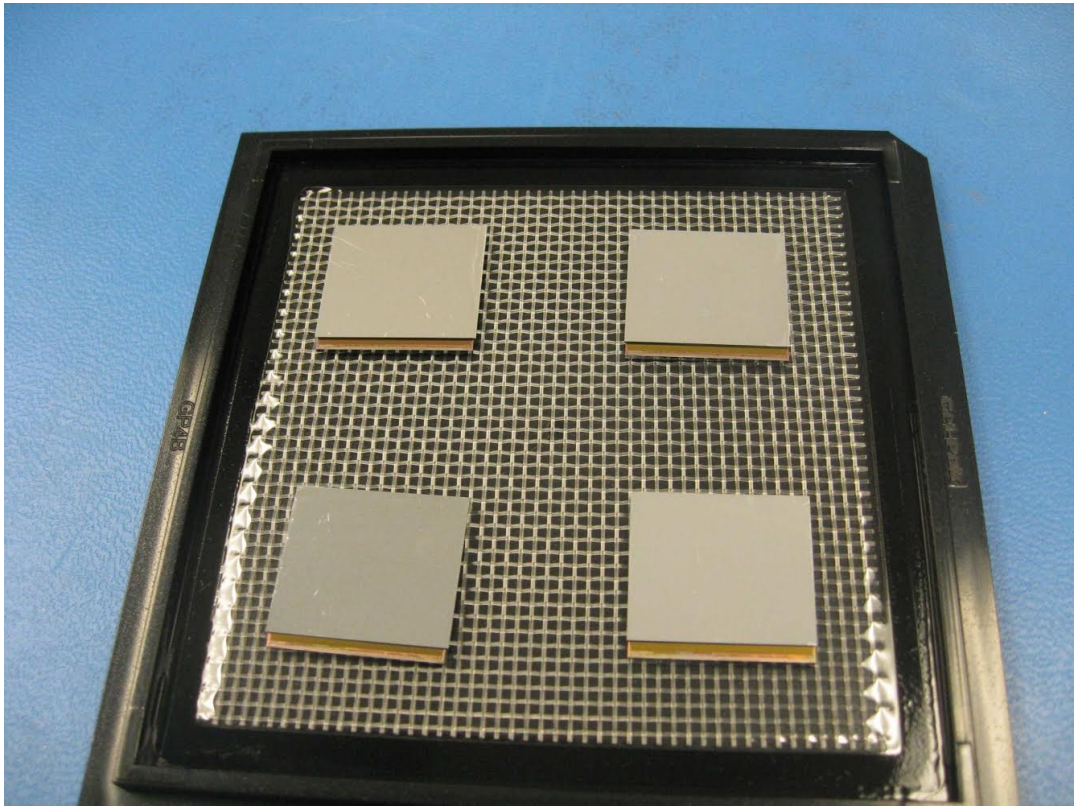
- US ATLAS pixel meeting on May 20th at 1 pm PT
  - Philippe has requested that we be prepared to discuss our group activities and plans

- Other news?
  - Test beam

RTI Modules

RTI modules arrived at SLAC!
6 quads + 6 singles

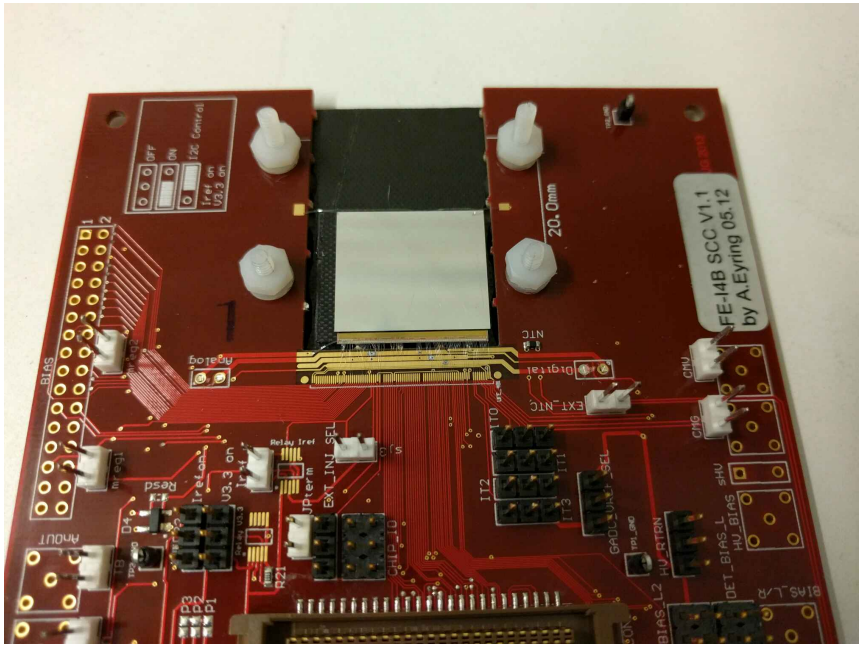
From Chris Kenney, 4 single chip sensors:

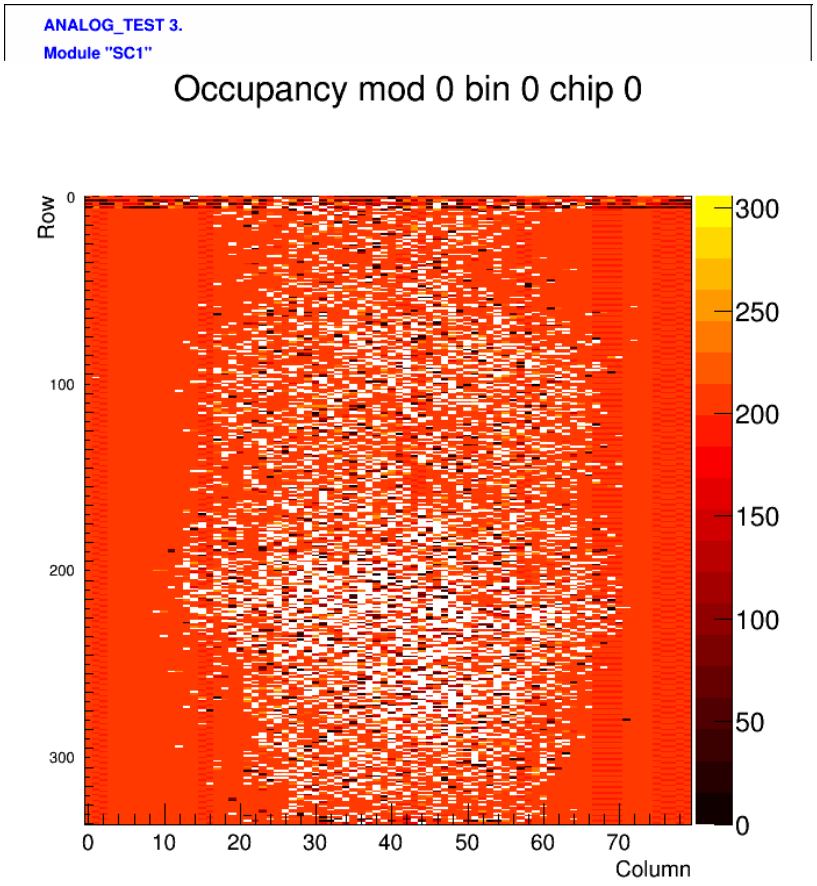


RTI Modules

Summarized from Maurice Garcia-Sciveres:

- 3 single chip modules were loaded at LBNL
- Analog injection test indicates lots of shorted pixels
  - All 3 modules look qualitatively the same





RTI Modules

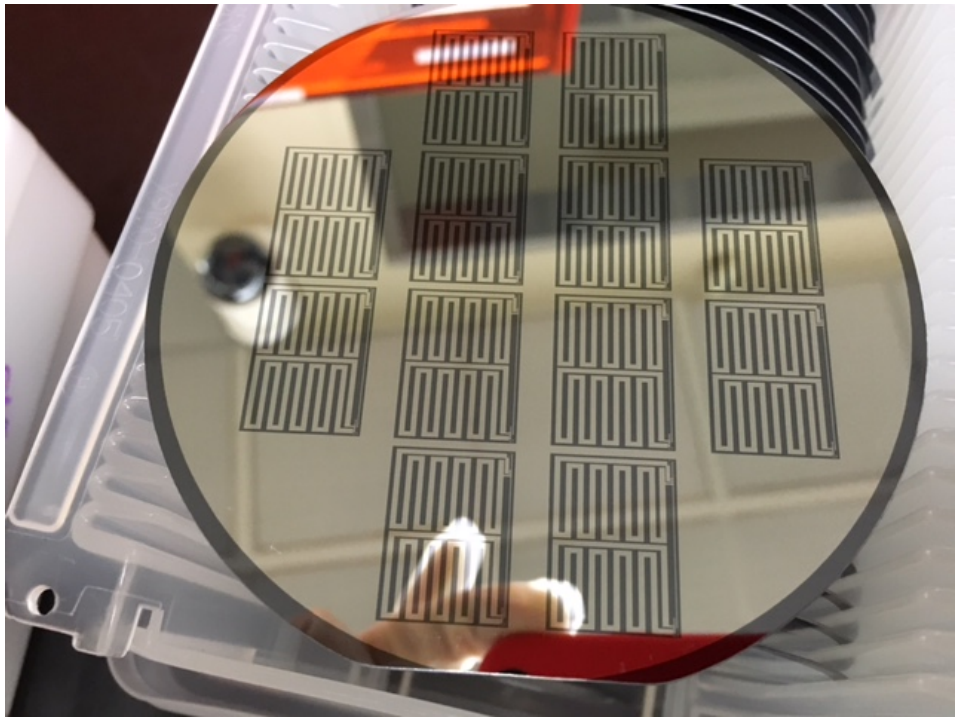
- RTI believes they missed a cleaning step
- Left a polymer film
- 2 non-mounted modules will be reworked
- Waiting for confirmation

Dummy Modules

Summarized from Chris Kenney:

"ASIC" wafer had metal deposited, lithography, and etching by Julie Segal (SLAC)

- 72/75 wafers were successful
- 'snake' resistance is about 20 Ω for oxide wafers, 30 Ω non-oxide wafers (8 Ω target)
- Wafers out for thinning as of last week
- Expect dicing soon
- Expect to complete in mid-May

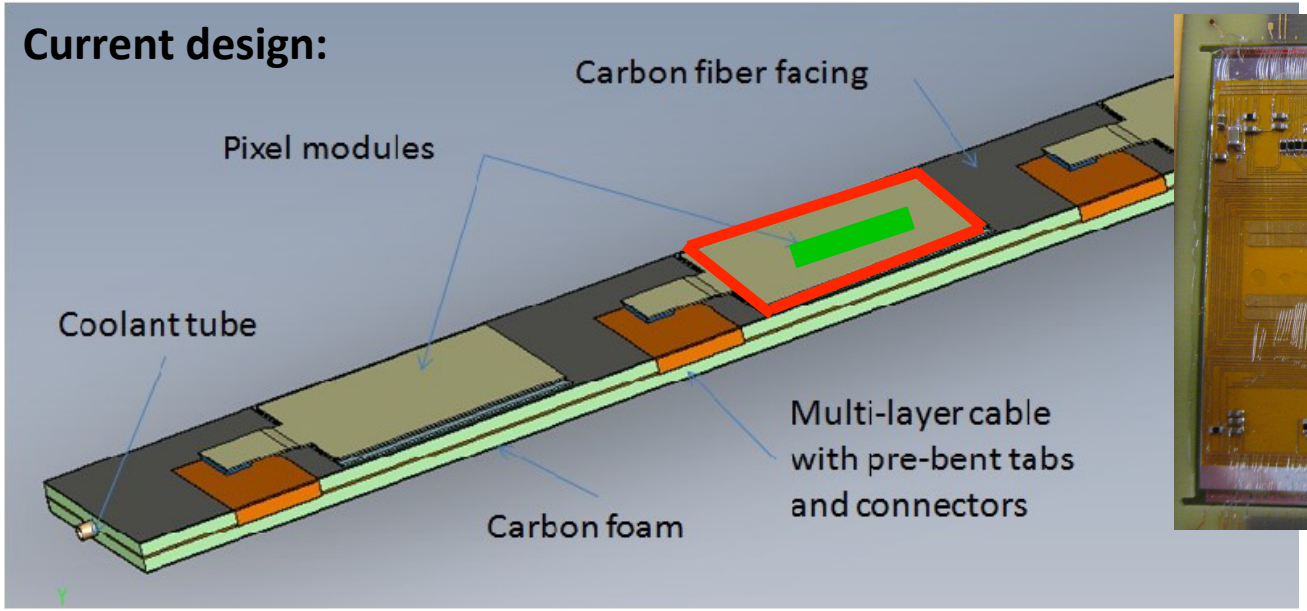


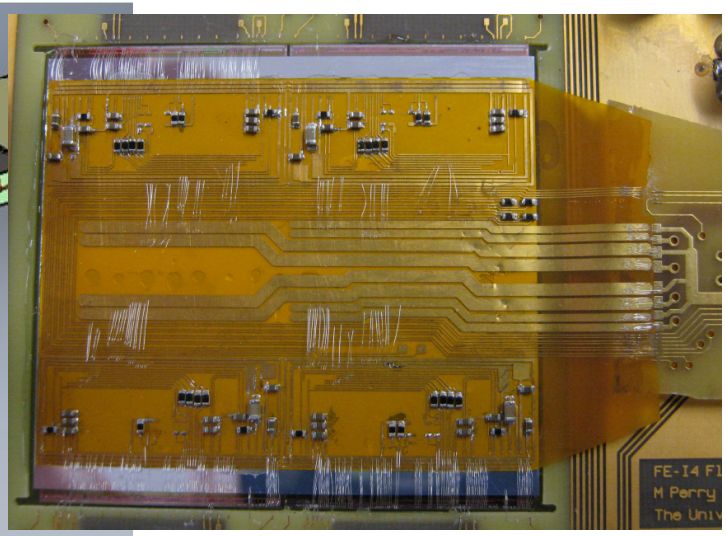
Quad Module Flex Redesign

Argonne redesign the quad module flex cable:

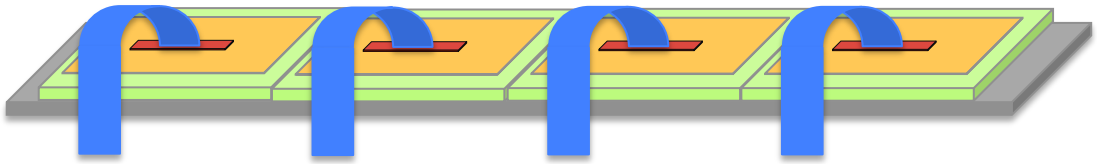
· Add a connector on the quad module flex cable to allow modules to be placed adjacent to each other

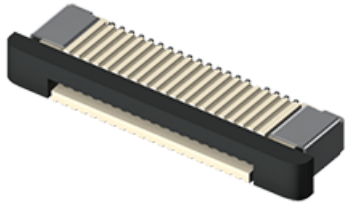
Current design:





Updated concept:





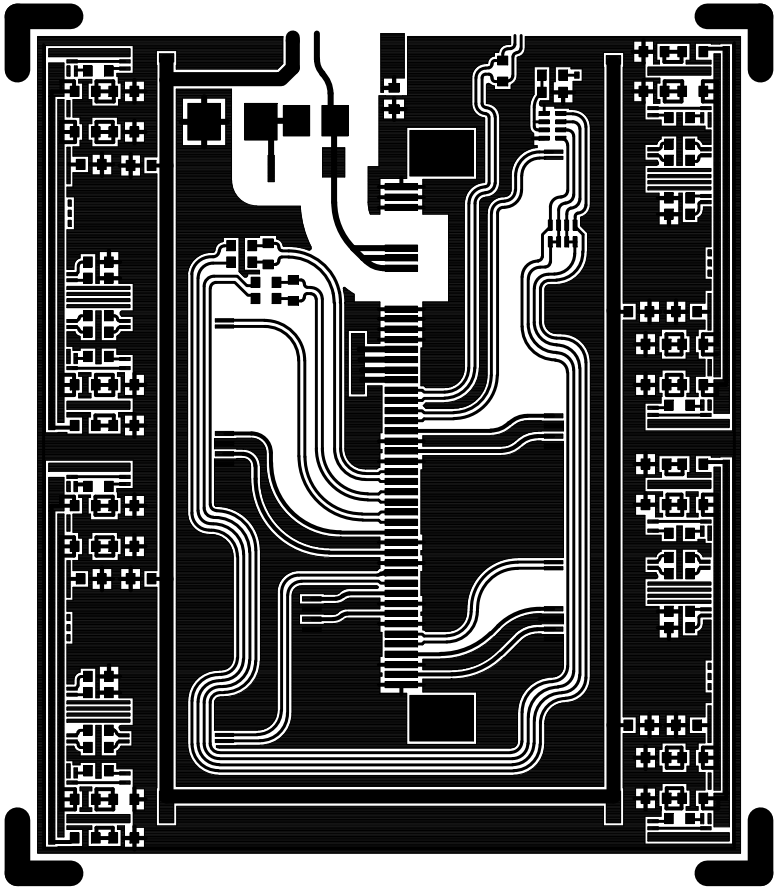
ZIF connector

Quad Flex Cable

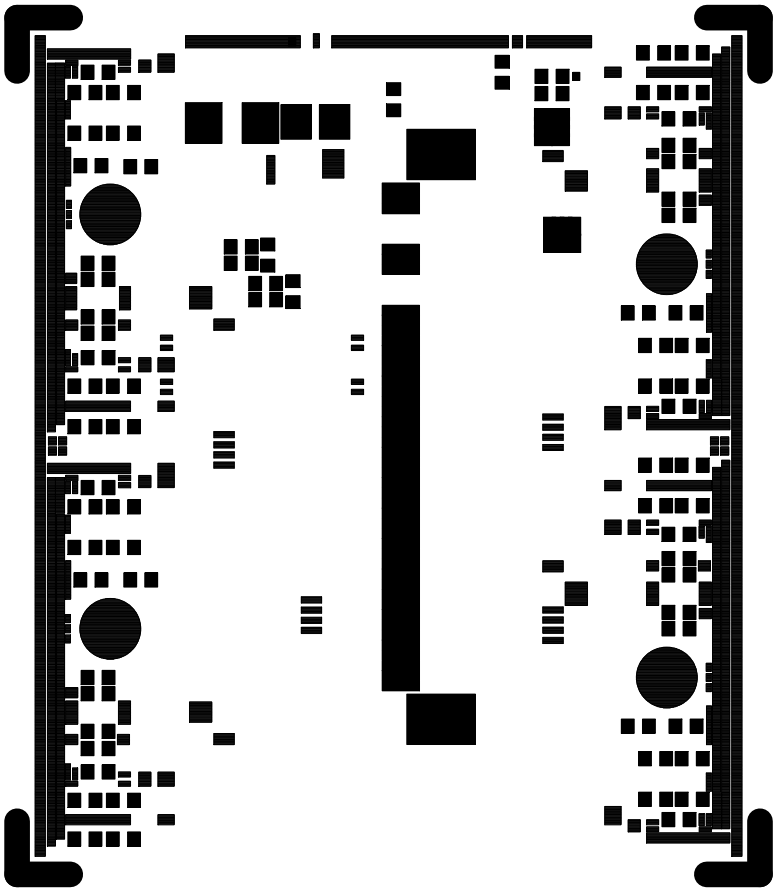
Redesign finished

- Please take a look offline to see if you notice any issues
- Files attached to meeting agenda

Top Copper

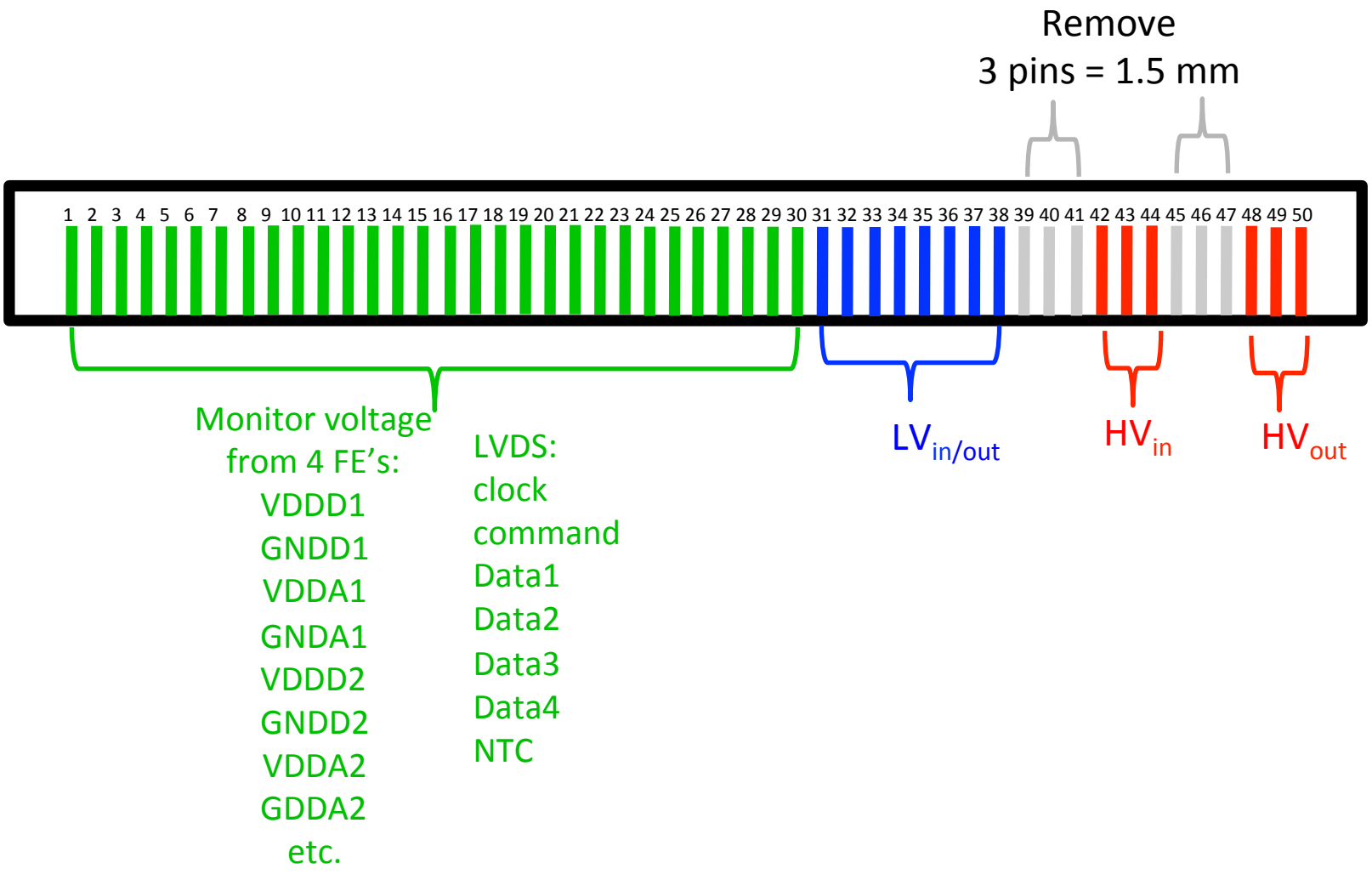


Top Overlay



Quad Flex Pin-out

Current Layout:



Quad Flex Pin-out

Pin-out:

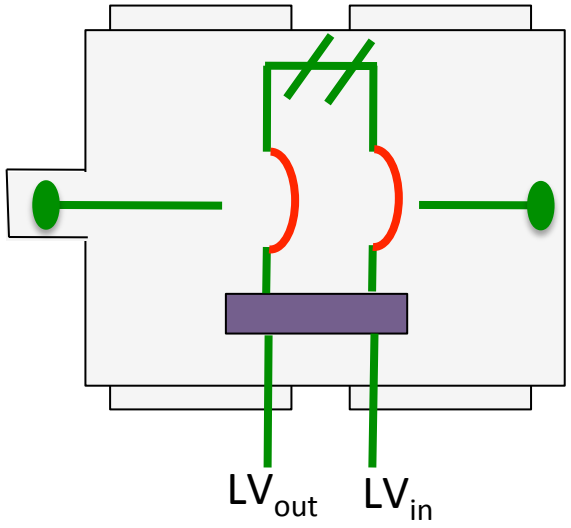
Pin		Pin	
1	GNDA3	26	VDDD4
2	VDDA3	27	Data4+
3	GNDD3	28	Data4-
4	VDDD3	29	NTC-
5	Data3+	30	NTC+
6	Data3-	31	LV_IN
7	GNDA2	32	LV_IN
8	VDDA2	33	LV_IN
9	GNDD2	34	LV_IN
10	VDDD2	35	LV_OUT
11	Data2-	36	LV_OUT
12	Data2+	37	LV_OUT
13	GNDA1	38	LV_OUT
14	VDDA1	39	-
15	GNDD1	40	-
16	VDDD1	41	-
17	Data1-	42	HV_IN
18	Data1+	43	HV_IN
19	Command-	44	HV_IN
20	Command+	45	-
21	Clock-	46	-
22	Clock+	47	-
23	GNDA4	48	HV_OUT
24	VDDA4	49	HV_OUT
25	GNDD4	50	HV_OUT

Backup

Backup

Daisy Chain

Single Module:



= wire bond

Daisy Chain: